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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

McRO, Inc., d.b.a. Planet Blue, Plaintiffs, v. **Infinity Ward, Inc.**, Defendants.	No. CV 14-352-GW(FFMx) **RULING ON DEFENDANTS' MOTION FOR JUDGMENT ON THE PLEADINGS BASED ON UNPATENTABILITY UNDER 35 U.S.C. § 101**

I. Background

The Court is presiding over two sets of consolidated patent infringement cases filed by Plaintiff McRO, Inc., d.b.a. Planet Blue ("Plaintiff" or "Planet Blue"): the "Track 1" cases, consolidated under Case No. CV-12-10322,[1] and the "Track 2" cases, consolidated under Case No. CV 13-1872.[2] The cases all involve Plaintiff's

[1] The current Track 1 cases are: *McRO, Inc. v. Namco Bandai Games America, Inc.*, CV-12-10322; *McRO, Inc. v. Konami Digital Entertainment, Inc.*, CV-12-10323; *McRO, Inc. v. Sega of America, Inc.*, CV-12-10327; *McRO, Inc. v. Electronics Arts, Inc.*, CV-12-10329; *McRO, Inc. v. Obsidian Entertainment, Inc.*, CV-12-10331; *McRO, Inc. v. Disney Interactive Studios, Inc.*, CV-12-10333; *McRO, Inc. v. Naughty Dog, Inc.*, CV-12-10335; *McRO, Inc. v. Capcom USA, Inc.*, CV-12-10337; *McRO, Inc. v. Square Enix, Inc.*, CV-12-10338; *McRO, Inc. v. Neversoft Entertainment, Inc.*, CV-12-10341; *McRO, Inc. v. Treyarch Corporation*, CV-12-10342; *McRO, Inc. v. Atlus U.S.A., et al.*, CV-13-1870; McRO, *Inc. v. Sucker Punch Productions, LLC*, CV-14-0332; *McRO, Inc. v. Activision Blizzard, Inc.*, CV-14-0336; *McRO, Inc. v. Infinity Ward, Inc.*, CV-14-0352; *McRO, Inc. v. LucasArts Entertainment Company LLC*, CV-14-358; *McRO, Inc. v. Sony Computer Entertainment America, LLC, et al.*, CV-14-0383; *McRO, Inc. v. Warner Bros. Interactive Entertainment Inc.*, CV-14-0417.

[2] The current Track 2 cases are: *McRO, Inc. v. Valve Corporation*, CV-13-1874; *McRO, Inc. v. Codemasters USA Group, Inc. et al*, CV-14-0389; *McRO, Inc. v. Codemasters, Inc., et al*, CV-14-0439.

allegation that Defendants directly or indirectly infringed two patents for automatically animating the lip synchronization and facial expressions of 3D characters. The cases are proceeding on different tracks due to the filing or transfer dates of the cases, although various later-filed cases have been consolidated into Track 1 due to corporate or counsel relationships.

This Motion for Judgment on the Pleadings Based on Unpatentability under 35 U.S.C. § 101 ("Motion") was jointly filed by all defendants in both Tracks: Namco Bandai Games America, Inc.; Sega of America, Inc.; Electronic Arts, Inc.; Disney Interactive Studios, Inc.; Capcom USA, Inc.; Neversoft Entertainment, Inc.; Treyarch Corporation; Warner Bros. Interactive Entertainment, Inc.; LucasArts Entertainment Co. LLC; Activision Publishing, Inc.; Blizzard Entertainment, Inc.; Infinity Ward, Inc.; Atlus U.S.A., Inc.; Konami Digital Entertainment, Inc.; Square Enix, Inc.; Obsidian Entertainment, Inc.; Naughty Dog, Inc.; Sony Computer Entertainment America, LLC; Sucker Punch Productions, LLC; The Codemasters Software Company Limited; Codemasters, Inc.; Codemasters USA Group, Inc.; and Valve Corp. (collectively, "Defendants"). Notice of Mot., Docket No. 338 at 2. Plaintiff filed its Opposition on July 24, 2014. Docket No. 344. Defendants filed their Reply on July 31, 2014. Docket No. 350.

At issue are United States Patent Nos. 6,307,576 ("'576 Patent"), issued October 23, 2001, and 6,611,278 ("'278 Patent"), issued August 26, 2003, both to Maury Rosenfeld, and both titled "Method for Automatically Animating Lip Synchronization and Facial Expression of Animated Characters." The '278 Patent resulted from a continuation of the application that resulted in the '576 Patent, meaning the patents share the same disclosure. *See PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1304, n.3 (Fed. Cir. 2008).

The patents explain that prior methods of animating lip synchronization and facial expressions were laborious and uneconomical. '576 Patent 1:14-31. The

patents address that problem with an automated method of using "weighted morph targets and time aligned phonetic transcriptions of recorded text, and other time aligned data." '576 Patent 2:64-3:12. The patents explain that in the relevant art, "'phonemes [are] defined as the smallest unit of speech, and correspond[] to a single sound." '576 Patent 1:34-36. A sound recording can be transcribed into a "time aligned phonetic transcription" in which the timing of each phoneme is noted. '576 Patent 1:32-34. Such transcriptions can be created by hand or by automatic speech recognition programs. '576 Patent 1:39-43.

The patents explain that the prior art practice for 3-D computer generated speech animation was by manual techniques using a "morph target" approach. '576 Patent 1:44-46. That approach uses a reference model of a neutral mouth position in conjunction with "morph targets," which are models of the mouth in non-neutral positions corresponding to different phonemes. '576 Patent 1:46-49. The reference model and morph targets all share the same "topology" of the mouth, defined by the same number and placement of "vertices" that designate specific points on the mouth. For example, vertex "n" on the neutral mouth and all of the morph targets may represent the left corner of the mouth. '576 Patent 1:51-54.

The "deltas," or changes, of each vertex on each morph target relative to the corresponding vertex on the neutral model are computed as a vector to produce an individual "delta set" of vectors for each morph target. '576 Patent 1:58-62. From the neutral model, the animator need not move the mouth position all the way to a morph target. Instead, the animator can apply a value between 0 and 1, called the "morph weight," to a delta set to move the mouth just a percentage of the way to the corresponding morph target. '576 Patent 1:63-2:1. For example, if the sound (morph target) is "oh," and the morph weight is 0.5, the mouth only moves halfway between the neutral position and the "oh" morph target. '576 Patent 2:16-22. It is also possible to blend the morph targets, for example, 0.3 "oh" and 0.7 "ee," resulting in

a mouth position exhibiting a combination of the "oh" and "ee" sound characteristics. '576 Patent 2:23-28.

According to the patents, applying the appropriate morph weights in the prior art was usually done using a "keyframe" approach. In the keyframe approach, an artist sets the morph weights at certain important times, and a computer program then interpolates each of the channels at each frame between the keyframes. '576 Patent 2:29-34. The patents state that this method requires the artist to manually set a large number of keyframes, which is tedious, time consuming, and inaccurate. '576 Patent 2:34-37. Therefore, an object of the invention is to provide "an extremely rapid and cost effective means to automatically create lip synchronization and facial expression in three dimensional animated characters." '576 Patent 2:50-54.

The invention "utilizes a set of rules that determine the system[']s output comprising a stream or streams of morph weight sets when a sequence of timed phonemes or other timed data is encountered." '576 Patent 3:3-7. The invention includes:

> [C]onfiguring a set of default correspondence rules between a plurality of visual phoneme groups and a plurality of morph weight sets; and specifying a plurality of morph weight set transition rules for specifying durational data for the generation of transitionary curves between the plurality of morph weight sets, allowing for the production of a stream of specified morph weight sets to be processed by a computer animation system . . . .

'576 Patent 3:23-30.

Defendants argue that the claims of both patents in suit are patent ineligible under 35 U.S.C. § 101 because they merely "set[] forth the previously-known animation method as a series of mathematical steps, and instruct[] the user to perform those steps on a computer." Mot., Docket No. 338 at 12.

II. Legal Standard

A. Motion for Judgment on the Pleadings

Rule 12(c) of the Federal Rules of Civil Procedure permits a party to move to dismiss a suit "[a]fter the pleadings are closed . . . but early enough not to delay trial."

Fed. R. Civ. P. 12(c). "Judgment on the pleadings is proper when, taking all allegations in the pleading as true, the moving party is entitled to judgment as a matter of law." *Stanley v. Trustees of Cal. State Univ.*, 433 F.3d 1129, 1133 (9th Cir. 2006); *see also Fleming v. Pickard*, 581 F.3d 922, 925 (9th Cir. 2009). Because a motion for judgment on the pleadings is "functionally identical" to a motion to dismiss, the standard for a Rule 12(c) motion is the same as for a Rule 12(b)(6) motion. *See Platt Elec. Supply, Inc. v. EOFF Elec., Inc.*, 522 F.3d 1049, 1052 n.1 (9th Cir. 2008).

A complaint may be dismissed for failure to state a claim upon which relief can be granted for one of two reasons: (1) lack of a cognizable legal theory or (2) insufficient facts under a cognizable legal theory. *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 555 (2007). *See also Mendiondo v. Centinela Hosp. Med. Ctr.,* 521 F.3d 1097, 1104 (9th Cir. 2008) ("Dismissal under Rule 12(b)(6) is appropriate only where the complaint lacks a cognizable legal theory or sufficient facts to support a cognizable legal theory."). A motion to dismiss should be granted if the complaint does not proffer enough facts to state a claim for relief that is plausible on its face. *See Twombly*, 550 U.S. at 558-59, 570; *see also William O. Gilley Enters., Inc. v. Atlantic Richfield Co.*, 588 F.3d 659, 667 (9th Cir. 2009) (confirming that *Twombly* pleading requirements "apply in all civil cases"). "[W]here the well-pleaded facts do not permit the court to infer more than the mere possibility of misconduct, the complaint has alleged – but it has not 'show[n]' – 'that the pleader is entitled to relief.'" *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009) (quoting Fed. R. Civ. P. 8(a)(2)).

In deciding a 12(b)(6) or 12(c) motion, the court is limited to the allegations on the face of the complaint (including documents attached thereto), matters which are properly judicially noticeable and other extrinsic documents when "the plaintiff's claim depends on the contents of a document, the defendant attaches the document to its motion to dismiss, and the parties do not dispute the authenticity of the document, even though the plaintiff does not explicitly allege the contents of that

document in the complaint." *Knievel v. ESPN*, 393 F.3d 1068, 1076 (9th Cir. 2005). The court must construe the complaint in the light most favorable to the plaintiff and must accept all factual allegations as true. *Cahill v. Liberty Mutual Ins. Co.*, 80 F.3d 336, 337-38 (9th Cir. 1996). The court must also accept as true all reasonable inferences to be drawn from the material allegations in the complaint. *See Brown v. Elec. Arts, Inc.*, 724 F.3d 1235, 1247-48 (9th Cir. 2013); *Pareto v. F.D.I.C.*, 139 F.3d 696, 699 (9th Cir. 1998). Conclusory statements, unlike proper factual allegations, are not entitled to a presumption of truth. *See Iqbal*, 556 U.S. at 681; *Moss v. U.S. Secret Serv.*, 572 F.3d 962, 969 (9th Cir. 2009).

B. Patentable Subject Matter Under 35 U.S.C. § 101[3]

35 U.S.C. § 101 "defines the subject matter that may be patented under the Patent Act." *Bilski v. Kappos*, 561 U.S. 593, ___, 130 S.Ct. 3218, 3225 (2010). It provides:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Id. "In choosing such expansive terms . . . modified by the comprehensive 'any,' Congress plainly contemplated that the patent laws would be given wide scope" "to ensure that 'ingenuity should receive a liberal encouragement.'" *Id*. (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (quoting 5 Writings of Thomas Jefferson 75–76 (H. Washington ed. 1871)) (some internal quotation marks omitted).

The "wide scope" of patent eligibility is not unlimited. Instead, the Supreme Court has invented or discovered "three specific exceptions to § 101's broad patent-eligibility principles: 'laws of nature, physical phenomena, and abstract ideas.'" *Bilski*, 130 S.Ct. at 3225 (quoting *Chakrabarty*, 447 U.S. at 309). Although "the exceptions have defined the statute's reach as a matter of statutory *stare decisis*

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[3] This section concerning the applicable legal standard is the same as the corresponding section in this Court's recent decision in *Eclipse IP LLC v. McKinley Equip. Corp.*, CV-14-154-GW (AJWx), 2014 WL 4407592 (C.D. Cal. Sept. 4, 2014), except for minor changes.

going back 150 years,"[4] *id*., they have not been enumerated consistently during that time. Forty years ago, the list of unpatentable "basic tools of scientific and technological work" was: "[p]henomena of nature . . . , mental processes, and abstract intellectual concepts." *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972).

In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S.Ct. 1289 (2012), the Supreme Court "set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014). That framework is as follows:

> First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, "[w]hat else is there in the claims before us?" To answer that question, we consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent-eligible application. We have described step two of this analysis as a search for an "'inventive concept'" – *i.e.*, an element or combination of elements that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself."

Id. at 2355 (citations omitted).

Describing this as a two-step test may overstate the number of steps involved. If the claim is not "directed" to a patent-ineligible concept, then the test stops at step one. If the claim is so directed, but we find in step two that the claim contains an "inventive concept" that "transforms" the nature of the claim into something patent eligible, then it seems that there was a categorization error in finding the claim – which is considered "as an ordered combination" – "directed to an abstract idea" in step one.

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[4] "Statutory *stare decisis*" is a recent coinage, apparently used for the first time by Justice Scalia concurring in part in *Rita v. United States*, 551 U.S. 338, 368 (2007). Justice Ginsburg was the next to use the phrase: "Although I joined Justice SCALIA in *Rita* accepting the *Booker* remedial opinion as a matter of 'statutory *stare decisis*' . . . ." *Kimbrough v. United States*, 552 U.S. 85, 116 (2007). Justice Ginsburg's use of quotation marks could have been a comment on the novelty of the phrase, but might have simply indicated a quotation. In any event, Justice Ginsburg later used the phrase without quotation marks in *CSX Transp., Inc. v. McBride*, 131 S. Ct. 2630, 2641 (2011). The context there makes clear that the phrase refers to the principle that "[c]onsiderations of *stare decisis* have special force in the area of statutory interpretation, for here, unlike in the context of constitutional interpretation, the legislative power is implicated, and Congress remains free to alter what we have done." *Patterson v. McLean Credit Union*, 491 U.S. 164, 172-73 (1989).

So, the two-step test may be more like a one step test evocative of Justice Stewart's most famous phrase. *See Jacobellis v. State of Ohio*, 378 U.S. 184, 197 (1964) (Stewart, J. concurring) ("I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description; and perhaps I could never succeed in intelligibly doing so. But I know it when I see it . . . ."); *cf. Alice*, 134 S.Ct. at 2357 ("In any event, we need not labor to delimit the precise contours of the 'abstract ideas' category in this case.").

Rest and relaxation prevailed in *Alice* because it was "enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue [in *Alice*]. Both are squarely within the realm of 'abstract ideas' . . . ." *Id*. at 2357 (citing to *Bilski*, 130 S.Ct. 3218). Thus, so far, the two-part test for identifying an abstract idea appears to be of limited utility, while comparisons to previously adjudicated patents – or more precisely, to past cases' characterizations of those patents[5] – have done the heavy lifting. *See also Bilski*, 130 S. Ct. at 3229 ("Rather than adopting categorical rules that might have wide-ranging and unforeseen impacts, the Court resolves this case narrowly on the basis of this Court's decisions in *Benson*, *Flook*, and *Diehr* . . . .").[6] It remains true that "[t]he life of the law has not been logic: it has been experience." Oliver Wendell Holmes, Jr., *The Common Law* 1 (1881).

But despite its narrow holding, *Alice* did categorically establish a clear rule that had previously been subject to debate: "mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." 134 S.Ct. at 2358. And before *Alice*, it was unclear to some, including the USPTO,

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[5] *Mayo* noted that, as to the patent-ineligible approach of simply instructing artisans "to apply" unpatentable subject matter, "[t]he process in *Diehr* was not so **characterized**; that in *Flook* was **characterized** in roughly this way." 132 S. Ct. at 1299-1300 (emphasis added).

[6] Scholars have argued that "the *Mayo* decision has revived the *Flook* approach, although without displacing *Diehr* or explaining how the two apparently contradictory decisions can be reconciled." Brief of Professors Peter S. Menell and Jeffrey A. Lefstin as Amici Curiae in Support of Respondents, *Alice Corp. Pty, Ltd. v. CLS Bank Int'l*, No. 13-298, 2014 U.S. Briefs LEXIS 784 at 10 (Feb. 27, 2014).

that the framework set forth in *Mayo* applied to abstract ideas as well as to the law of nature/natural phenomena at issue in *Mayo*. *See* Memo to Patent Examining Corps from Andrew H. Hirschfeld, Deputy Commissioner for Patent Examination Policy, Preliminary Examination Instructions in view of the Supreme Court Decision in *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.* (June 25, 2014), *available at* http://www.uspto.gov/patents/announce/alice_pec_25jun2014.pdf.[7]

And, while the boundaries of the judicial exceptions remain subject to further development, the Supreme Court has clearly stated the policy underlying those exceptions, i.e. avoiding patents that "too broadly preempt the use of a natural law [or abstract idea]." *Mayo*, 132 S.Ct. at 1294. Thus, patent law should "not inhibit further discovery by improperly tying up the future use of laws of nature [or abstract ideas]." *Id*. at 1301.

Mayo discussed the Supreme Court's 1854 decision upholding many of Samuel Morse's telegraph patent claims, but invalidating the most general claim, which covered "the use of the motive power of the electric or galvanic current . . . however developed, for making or printing intelligible characters, letters, or signs, at any distances." *Id*. The Supreme Court presciently explained that such a claim would inhibit, rather than promote, the progress of the useful arts:

> For aught that we now know some future inventor, in the onward march of science, may discover a mode of writing or printing at a distance by means of the electric or galvanic current, without using any part of the process or combination set forth in the plaintiff's specification. His invention may be less complicated – less liable to get out of order – less expensive in construction, and in its operation. But yet if it is covered by this patent the inventor could not use it, nor the public have the benefit of it without the permission of this patentee.

Id. (quoting *O'Reilly v. Morse*, 15 How. 62, 113 (1854).) True, patents always

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[7] Indeed, in the USPTO's view, *Alice*'s embrace of the *Mayo* framework for abstract idea cases was such a significant change or clarification that it has withdrawn issued notices of allowance – that is, stopped patents that had made it all the way through examination and were about to issue – "due to the presence of at least one claim having an abstract idea and no more than a generic computer to perform generic computer functions." USPTO Commissioner for Patents Peggy Focarino, Update on USPTO's Implementation of 'Alice v. CLS Bank' (Aug. 4, 2014), available at http://www.uspto.gov/blog/director/entry/update_on_uspto_s_implementation.

present some impediment to follow-on innovation. The principle is one of balance: patents should not "foreclose[] more future invention than the underlying discovery could reasonably justify." *Mayo*, 132 S.Ct. at 1301.

Of course, § 101 is not the sole, or even primary, tool to ensure that balance. Every condition of patentability set forth in the Patent Act acts to ensure that patents promote, rather than retard, the progress of science and useful arts. For example, in a manner quite similar to recent § 101 jurisprudence, "[t]he written description requirement guards against claims that 'merely recite a description of the problem to be solved while claiming all solutions to it and . . . cover any compound later actually invented and determined to fall within the claim's functional boundaries.'" *Abbvie Deutschland GmbH & Co., KG v. Janssen Biotech, Inc.*, __ F.3d __, 2013-1338, 2014 WL 2937477, 11 (Fed. Cir. July 1, 2014) (quoting *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1353 (Fed. Cir. 2010)).

However, scholars have argued that the written description and enablement doctrines of § 112, as currently applied, do not adequately prevent unwarranted obstructions to follow-on innovation, and have urged that § 101 can and should do so. *See, e.g.*, Lemley et al., *Life After Bilski*, 63 Stan. L. Rev. 1315, 1330 (2011) (cited in *Mayo*, 132 S.Ct. at 1301-03, 1304); *but see* Lemley, *Point of Novelty*, 105 Nw. U. L. Rev. 1253, 1279 (2011) ("[T]here is good reason to worry about overbroad patent claims that lock up a wide swath of potential future applications. But the enablement and written description doctrines largely address that concern.").

In any event, the Supreme Court has spoken, and § 101 now plays an important limiting role. But District Courts and the Federal Circuit are now left with the task of figuring out when the "two-part" test is satisfied. Perhaps something like the function-way-result test used to evaluate infringement under the doctrine of equivalents might be useful. Thus, in one long-standing formulation, an accused instrumentality infringes "if it performs substantially the same function in

substantially the same way to obtain the same result." *Union Paper-Bag Mach. Co. v. Murphy*, 97 U.S. 120, 125 (1877); *InTouch Technologies, Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1343 (Fed. Cir. 2014).

The test in practice often focuses on the "way" aspect of the test, because function and result are often identical in the patent and accused product, and the question is whether the accused infringer uses the same "way." Laura A. Handley, *Refining the Graver Tank Analysis with Hypothetical Claims: A Biotechnology Exemplar*, 5 Harv. J.L. & Tech. 36 (1991) ("In practice, the second prong of the test – 'substantially the same way' is often emphasized, since most infringement suits result from competition for a given market niche which dictates the 'function' and 'result' prongs.") (citing *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1531 (Fed. Cir. 1987)).[8]

Similarly, the question in the abstract idea context is whether there are other *ways* to use the abstract idea in the same field. If so, the Supreme Court has expressly encouraged others to find those other ways, without being held back by patents that preempt the whole concept. *Mayo*, 132 S.Ct. at 1294 (citing *O'Reilly*, 15 How. at 113); *Alice*, 134 S.Ct. at 3258 (noting "the pre-emption concern that undergirds our § 101 jurisprudence.").

Concomitantly, we must be wary of facile arguments that a patent preempts all applications of an idea. It may often be easier for an infringer to argue that a patent fails § 101 than to figure out a different way to implement an idea, especially a way that is "less complicated – less liable to get out of order – less expensive in construction, and in its operation." *O'Reilly*, 15 How. at 113. But the patent law does not privilege the leisure of an infringer over the labors of an inventor. Patents

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[8] *Perkin-Elmer* held that "repeated assertions that the claimed and accused devices perform substantially the same function and achieve substantially the same end result are not helpful. That circumstance is commonplace when the devices are sold in competition. That a claimed invention and an accused device may perform substantially the same function and may achieve the same result will not make the latter an infringement under the doctrine of equivalents where it performs the function and achieves the result in a substantially different way." 822 F.2d at 1532 n.6.

should not be casually discarded as failing § 101 just because the infringer would prefer to avoid the work required to develop non-infringing uses of the abstract idea at the heart of an appropriately circumscribed invention.

III. Analysis

A. Defendants' Patents Are Irrelevant

Plaintiff argues that Defendants' own patents for lip-synchronization, some of which issued very recently, undermine Defendants' argument that the patents-in-suit are directed to unpatentable subject matter. Opp'n, Docket No. 344 at 20-22. The validity of Defendants' patents is not before the Court, and Plaintiff has cited no authority for the proposition that Defendants' obtaining them operates as an estoppel in this case. There may be numerous factual differences between Defendants' patents and those at issue here. And even if Defendants' patents rise and fall with Plaintiff's, it is hard to fault anyone for seeking patents that may turn out to be invalid where the applicable standards are shifting and uncertain. "A change in the weather has known to be extreme." Bob Dylan, *You're a Big Girl Now*, Blood on the Tracks (Columbia Records 1974).

B. The Patents-in-Suit Fail § 101

1. The Claims, In Isolation, Appear Tangible and Specific

Defendants argue that the patents-in-suit are directed to a "fundamental, abstract animation practice," namely, "the abstract idea of rules-based synchronization of animated mouth movement." Mot., Docket No. 338 at 12. That is, Defendants argue that the patents cover the mere idea of using rules for three-dimensional lip synchronization, without requiring specific content for those rules. *Id*. at 12-13. But considered standing alone, the asserted claims do not seem to cover any and all use of rules for three-dimensional lip synchronization. The independent claims of each of the patents in suit are:

'576 Patent claim 1:

A method for automatically animating lip synchronization and facial expression of three-dimensional characters comprising:
obtaining a first set of rules that define output morph weight set stream as a function of phoneme sequence and time of said phoneme sequence;
obtaining a timed data file of phonemes having a plurality of sub-sequences;
generating an intermediate stream of output morph weight sets and a plurality of transition parameters between two adjacent morph weight sets by evaluating said plurality of sub-sequences against said first set of rules;
generating a final stream of output morph weight sets at a desired frame rate from said intermediate stream of output morph weight sets and said plurality of transition parameters; and
applying said final stream of output morph weight sets to a sequence of animated characters to produce lip synchronization and facial expression control of said animated characters.

'278 Patent claim 1:

A method for automatically animating lip synchronization and facial expression of three-dimensional characters comprising:
obtaining a first set of rules that defines a morph weight set stream as a function of phoneme sequence and times associated with said phoneme sequence;
obtaining a plurality of sub-sequences of timed phonemes corresponding to a desired audio sequence for said three-dimensional characters;
generating an output morph weight set stream by applying said first set of rules to each sub-sequence of said plurality of sub-sequences of timed phonemes; and
applying said output morph weight set stream to an input sequence of animated characters to generate an output sequence of animated characters with lip and facial expression synchronized to said audio sequence.

Facially, these claims do not seem directed to an abstract idea. They are tangible, each covering an approach to automated three-dimensional computer animation, which is a specific technological process. They do not claim a monopoly, as Defendants argue, on "the idea that the human mouth looks a certain way while speaking particular sounds," "applied to the field of animation." Mot., Docket No. 338 at 12, n.9. Further, the patents do not cover the prior art methods of computer assisted, but non-automated, lip synchronization for three-dimensional computer animation.

And according to Defendants, they do not cover the automated methods of lip synchronization for three-dimensional computer animation that Defendants employ. It is hard to show that an abstract idea has been preempted if there are noninfringing ways to use it in the same field. Section 101 motions can place parties in unfamiliar and uncomfortable positions: here it is to the patentee's advantage to identify noninfringing alternatives, and it is the accused infringer's advantage to posit the lack of any; the reverse of their positions at the infringement and damages stages of the case.

At first blush, it is therefore difficult to see how the claims might implicate the "basic underlying concern that these patents tie up too much future use of" any abstract idea they apply. *Mayo*, 132 S. Ct. at 1302; *Alice*, 134 S.Ct. at 2358 (noting "the pre-emption concern that undergirds our § 101 jurisprudence").

2. The Claims Must Be Evaluated in the Context of the Prior Art

However, for purposes of the § 101 analysis, it is not enough to view the claims in isolation. Instead, when determining whether a patent contains an adequate inventive concept, the Court must factor out conventional activity. That is because the inclusion of "well-understood, routine, conventional activity" previously used in the field "is normally not sufficient to transform an unpatentable law of nature [or abstract idea] into a patent-eligible application . . . ." *Mayo*, 132 S.Ct. at 1298.[9] Further, in addition to evaluating each step of the claim, the claims must be considered as "an ordered combination." *Alice*, 132 S.Ct. at 2355.

This dual analysis tracks the law's long-standing concern with patents that

[9] In a forthcoming paper, Jeffrey Lefstin argues that for more than a hundred years, the lesson drawn from the English *Neilson* case (relied upon by the Supreme Court in *Mayo*) was that any practical application of a new discovery was patentable, even if the application was entirely conventional. Jeffrey Lefstin, *Inventive Application: A History*, Fla. L. Rev. & Hastings Research, Paper No. 94 (Mar. 2014), *available at* http://ssrn.com/abstract =2398696. This is contrary to the current law that "appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable." *Mayo*, 132 S.Ct. at 1300. What the Supreme Court says about prior cases is often more important than what the cases themselves said. *See, e.g., Daimler AG v. Bauman*, 134 S. Ct. 746, 756 n.8 (2014) (eight-member majority chiding Justice Sotomayor for relying in her concurrence on the facts recited in *Perkins v. Benguet Consol. Mining Co.*, 342 U.S. 437 (1952) and in the intermediate appellate opinion in that case, rather than acquiescing to the characterization of *Perkins* in a recent decision, *Goodyear Dunlop Tires Operations, S.A. v. Brown*, 131 S.Ct. 2846 (2011)) (which Justice Sotomayor had joined).)

consist of old material with the addition of a new, but abstract, idea: "the vice of a functional claim exists not only when a claim is 'wholly' functional, if that is ever true, but also when the inventor is painstaking when he recites what has already been seen, and then uses conveniently functional language at the exact point of novelty." *Gen. Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 371, 58 S. Ct. 899, 903 (1938). An abstract idea is the extreme case of functional language.

Thus, where a claim recites tangible steps, but the only new part of the claim is an abstract idea, that may constitute a claim to an abstract idea. *See Alice*, 134 S. Ct. at 2358. (disregarding the presence of a computer in the claim given "the ubiquity of computers"); *Mayo*, 132 S.Ct. at 1297-98 (claim step calling for administration of drug only disregarded because it "refers to the relevant audience, namely doctors who treat patients with certain diseases with thiopurine drugs"; claim step of determining the level of the relevant metabolites disregarded because it was "well known in the art").

Here, the patents teach that in the prior art, three-dimensional character lip synchronization was performed using a "timed data file of phonemes having a plurality of sub-sequences," as recited in the claims. '576 Patent 1:32-43. But the prior art did not, according to the patents, involve obtaining rules that define output morph weight sets as a function of the phonemes, or using those rules to generate the morph weight sets. Instead, an artist manually set the morph weights at certain important keyframes, and a computer program then interpolated the frames between the keyframes. '576 Patent 2:29-37. Therefore, while tangible, the steps of (1) using a timed phoneme transcript, (2) setting morph weight sets at keyframes, or (3) interpolating between keyframes, are not "inventive steps" that could transform the claims herein into patent eligible subject matter, if those claims are directed to an abstract idea.

In attacking the claims as simply drawn to the abstract idea of "rules-based lip-

synchronized animation on a computer," Mot., Docket No. 338 at 3, Defendants' argument does not account for the presence in the claims, or the Court's construction, of "morph weight set." The Court construed "morph weight set" as a "set of values, one for each delta set, that, when applied, transform the neutral model to some desired state, wherein each delta set is the [set of vectors] from each vertex on the neutral (reference) model to each vertex on a model of another mouth position." Rulings on Claim Constr., Docket No. 298-1 at 9.

However, the patents themselves teach that the prior art includes using morph targets that correspond to phonemes and calculating delta sets that contain the vectors from each vertex on the neutral model to the morph target. '576 Patent at 1:44-62. So, while Defendant's characterization is overly broad, it would be fair to characterize the claims as drawn to the idea of automated rules-based use of morph targets and delta sets for lip-synchronized three-dimensional animation. Indeed, Plaintiff's expert opines that:

> A central part of the creative insight of the patents is the realization to use the specific approach of using morph weight set representations of the facial shape coupled with rules, including explicit and distinct timing rules, to generate keyframes. This approach uniquely provides the automation required to produce animation in a cost-effective way, yet provided the necessary artistic control required to produce commercial grade animation.

Declaration of Michael Gleicher, Ph.D. in Supp. of Opp'n, Docket No. 345, ¶ 20. Defendants object to this testimony, because "[t]he Court may not consider declarations in opposition to a Rule 12(c) motion without converting the motion to a motion for summary judgment." Defs.' Objections to Declarations Filed in Connection with Motion for Judgment on the Pleadings, Docket No. 351 at 2.[10] It is unclear how that response helps Defendants. Certainly, one option is for the Court to deny the Motion as presenting an issue that turns on the facts.

However, nothing in the Declaration affects the analysis. In the paragraph

[10] Plaintiff submitted a response to Defendant's Objections, which also included an unauthorized five-page sur-reply, which the Court would not consider. Planet Blue's Response to Defs.' Objections to Declarations Filed in Opposition to Motion for Judgment on the Pleadings, Docket No. 355. Neither would the Court consider Defendants' Reply to that Response, Docket No. 356.

quoted above, Plaintiff's expert opines that a central part of the patents is "using morph weight set representations of the facial shape coupled with rules, including explicit and distinct timing rules, to generate keyframes." Everyone appears to agree with that characterization, except that Defendants point out that no particular "explicit and distinct" rules are required by the claims. The question is therefore whether the inclusion of that *concept* in the claims satisfies § 101 given (1) the prior art, and (2) the fact that the claims do not require any particular rules.

A consideration of the prior art recited in the patents shows that the point of novelty here is the idea of using rules, including timing rules, to automate the process of generating keyframes. The following chart compares the '576 Patent's claim elements to the prior art described in that patent.

'576 Patent, Claim 1	
Step	**Admitted Prior Art**
A method for automatically animating lip synchronization and facial expression of three-dimensional characters comprising:	Automating the process is the focus of the invention. However, the patent teaches that in the prior art, the use of computerized interpolation partially automated the process by allowing animators to set mouth shapes only at keyframes, rather than at every frame, as would be the case in hand-drawn animation. '576 Patent 2:31-34.
obtaining a first set of rules that define output morph weight set stream as a function of phoneme sequence and time of said phoneme sequence;	Rules for defining morph weight sets as a function of phoneme sequence are disclosed as within the prior art. '576 Patent 1:44-2:28. Rules for defining morph weight sets as a function of timing are not; instead, the timing results from the artist's choice of keyframes. '576 Patent 2:29-34. Note, however, that no particular timing rules are required by any claim.

Step	Admitted Prior Art
generating an intermediate stream of output morph weight sets and a plurality of transition parameters between two adjacent morph weight sets by evaluating said plurality of sub-sequences against said first set of rules;	An intermediate stream of morph weight sets is disclosed as being part of the prior art through the keyframes manually set by the artist. '576 Patent 2:29-34. The transition parameters are not. Those parameters flow from the timing rules.
generating a final stream of output morph weight sets at a desired frame rate from said intermediate stream of output morph weight sets and said plurality of transition parameters; and	The patent teaches that the prior art generated the final stream by interpolating between the keyframes. '576 Patent 2:29-34. Again, transition parameters are not disclosed as being within the prior art.
applying said final stream of output morph weight sets to a sequence of animated characters to produce lip synchronization and facial expression control of said animated characters.	Both the final set of output morph weight sets and applying those sets are covered by the interpolation process of the prior art. '576 Patent 2:29-34.

So, what the claim adds to the prior art is the use of rules, rather than artists, to set the morph weights and transitions between phonemes. However, both of these concepts are specified at the highest level of generality. At the hearing on the Motion, Plaintiff emphasized that the rules inventively take into account the timing of the phoneme sequence. But the specification states clearly that "[i]n operation and use, the user must manually set up default correspondence rules" that "specify the durational information needed to generate appropriate transitionary curves between morph weight sets, such as transition start and end times." '576 Patent 6:46-54. Thus, the user, not the patent, provides the rules. And while the patent does provide an example of a very partial set of default and secondary rules, it expressly states that "this is only an example of a set of rules which could be use[d] for illustrative purposes, and many other rules could be specified according to the method of the invention." '576 Patent 7:36-9:23. Because the claim purports to cover all such rules, in light of the prior art, the claim merely states "an abstract idea while adding the words 'apply it.'" *Alice*, 134 S. Ct. at 2358 (quoting *Mayo*, 132 S.Ct. at 1294)

(some quotation marks omitted). The same is true for claim 1 of the '278 Patent, which does not differ in a manner relevant to this analysis.

Here, while the patents do not preempt the field of automatic lip synchronization for computer-generated 3D animation, they do preempt the field of such lip synchronization using a rules-based morph target approach. And if, as Plaintiff suggests, the inventive step is the use of timing rules, given the state of the prior art, that still leaves an abstract idea at the point of novelty, and preventing the development of any additional ways to use that abstract idea in the relevant field. *See Alice*, 134 S. Ct. at 2360 ("the claims at issue amount to 'nothing significantly more' than an instruction to apply the abstract idea of intermediated settlement using some unspecified, generic computer").

3. The Failure of the Claims Is Not Inconsistent with the Inventor Having Developed an Innovative Process

Defendants argue that a "patentee simpl[y] does not waste the time, money and effort to prosecute a patent application for an invention they casually indicate was known in the art." Opp'n, Docket No. 344 at 10-11. But a § 101 defect does not mean that the invention was in the prior art. The invention here may have been novel, but the claims are directed to an abstract idea. And the patent's casual – and honest – description of the prior art was made at a time when, under the then-prevalent interpretation of the law, such admissions were unlikely to be harmful. One unintended consequence of *Alice*, and perhaps of this and other decisions to come, is an incentive for patent applicants to say as little as possible about the prior art in their applications.[11]

Plaintiff points to one Defendant's contemporaneous characterization of Plaintiff's system as "revolutionary." Opp'n, Docket No. 344 at 1 (quoting Decl. of John Petrsoric In Opp'n to Mot., Docket No. 346, Ex. 2, January 27, 1999 Warner

[11]However, that strategy is limited by the doctrine of inequitable conduct.

Bros. Memorandum (inviting colleagues to a demonstration of Plaintiff's "revolutionary lip synch technique" that "utilizes proprietary software.")).

This argument is unpersuasive in this context for two reasons. First, for purposes of the § 101 inquiry, which is different from the § 103 inquiry, the revolutionary nature of an abstract idea does not weigh in favor of patentability. *See Mayo*, 132 S. Ct. at 1293 ("Einstein could not patent his celebrated law that $E=mc^2$ . . . . Such discoveries are 'manifestations of . . . nature, free to all men and reserved exclusively to none.'") (quoting *Chakrabarty*, 100 S.Ct. at 2204). Second, there has been no showing that the cited praise relates to the claims in all their breadth, rather than to a particular implementation that is not specified by the claims. Thus, the inventor's specific implementation of the abstract idea represented by the claim may have been of significant value beyond that of the abstract idea itself.

4. None of the Additional Content in the Asserted Dependent Claims Yields a Different Result

Plaintiff has asserted '576 Patent claims 1, 7-9, and 13, and '278 Patent, claims 1-4, 6, 9, 13, 15-17. Mot., Docket No. 338 at 2. The additional content of the dependent claims is addressed in the following chart:

Claim	Language	Analysis
'576 Patent claim 7	The method of claim 1 wherein said timed data is a time[] aligned phonetic transcriptions data.	Because "time aligned phonetic transcriptions" were used in the prior art ('576 Patent 1:32-37), the additional limitation of this claim does not affect the § 101 analysis.
'576 Patent claim 8	The method of claim 7 wherein said timed data further comprises time aligned data.	This adds nothing to claim 7, and so does not affect the § 101 analysis.

Claim	Language	Analysis
'576 Patent claim 9	The method of claim 7 wherein said timed data further comprises time aligned emotional transcription data.	Not specifically referenced in the patent's description of the prior art. However, this is just another idea of a factor that could be taken into account by the rules; the patent claims no specific method of doing so.
'576 Patent claim 13	The method of claim 1 wherein said first set of rules comprises: correspondence rules between a plurality of visual phoneme groups and a plurality of morph weight sets; and morph weight set transition rules specifying durational data for generating transitionary curves between morph weight sets.	Claim 1 already includes "obtaining a first set of rules that define output morph weight set stream as a function of phoneme sequence and time of said phoneme sequence." The specific content of claim 13 is not meaningfully different from that from a § 101 perspective.
'278 Patent claim 2	The method of claim 1, wherein said first set of rules comprises: correspondence rules between all visual phoneme groups and morph weight sets; and morph weight set transition rules specifying durational data between morph weight sets.	These elements have already been discussed in the context of the '576 Patent.
'278 Patent claim 3	The method of claim 2, wherein said durational data comprises transition start and transition end times.	Transition start and end times are inherent in "transition rules specifying durational data between morph weight sets," which is an element of '278 Patent claim 2.
'278 Patent claim 4	The method of claim 1, wherein said desired audio sequence is from a pre-recorded live performance.	This is merely limiting the claim to a particular field of use. "[T]he prohibition against patenting abstract ideas 'cannot be circumvented by attempting to limit the use of the formula to a particular technological environment' . . . ." *Bilski*, 130 S.Ct. at 3230 (quoting *Diehr*, 450 U.S. at 191).
'278 Patent claim 6	The method of claim 1, wherein said plurality of subsequences of timed phonemes is obtained from a file.	This presents the same issue as '278 Patent claim 4. *See* discussion above.

Claim	Language	Analysis
'278 Patent claim 9	The method of claim 1, wherein said generating said output morph weight stream comprises: generating an appropriate morph weight set corresponding to each subsequence of said timed phonemes; and generating time parameters for transition of said appropriate morph weight set from a morph weight set of a prior sub-sequence of said timed data.	This presents the same issue as '278 Patent claim 2. *See* discussion above.
'278 Patent claim 13	The method of claim 1, wherein said plurality of subsequences of timed phonemes comprises a time[] aligned phonetic transcriptions sequence.	This is a basic feature of the prior art. '278 Patent 1:35-47.
'278 Patent claim 15	The method of claim 13, wherein said plurality of subsequences of timed phonemes further comprises time aligned emotional transcription data.	Not specifically referenced in the patent's description of the prior art. However, this is just another idea of a factor that could be taken into account by the rules; the patent claims no specific method of doing so.
'278 Patent claim 16	The method of claim 9, wherein said transition parameters comprises: transition start time; and transition end time.	This presents the same issue as '278 Patent claim 2. *See* discussion above.
'278 Patent claim 17	The method of claim 16, further comprising: generating said output morph weight set stream by interpolating between morph weight sets at said transition start time and said transition end time according to a desired frame rate of said output sequence of animated characters	Such interpolation was used in the prior art. '278 Patent 2:29-32.

5. The Draftsman's Art

This case illustrates the danger that exists when the novel portions of an invention are claimed too broadly. As noted above, the claims here are drafted to give the impression of tangibility, but the Supreme Court has "long warn[ed] . . .

against interpreting § 101 in ways that make patent eligibility depend simply on the draftsman's art. " *Alice*, 134 S. Ct. at 2351 (citing *Mayo*, 132 S.Ct. at 1294). When examined in light of the prior art, the claims are directed to an abstract idea, and lack an "inventive concept" "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself." *Id*. at 2355 (citations omitted).

IV. Conclusion

For the foregoing reasons, the Court would GRANT the Motion, and hold '576 Patent claims 1, 7-9, and 13, and '278 Patent claims 1-4, 6, 9, 13, and 15-17 invalid under 35 U.S.C. § 101.

Dated: This 22nd day of September, 2014.

GEORGE H. WU
United States District Judge